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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the application of:

SANGKEUN RHEE, ET AL.

Docket: H0004301 (4760)

Serial Number: 10/783,357

Group Art Unit: 1772

Filed: February 20, 2004

Examiner: Charles Dooner

For: MULTILAYER SHEETS AND FILMS COMPOSED OF PCTFE AND CYCLIC OLEFIN COPOLYMER

REPLY BRIEF FOR APPELLANT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer mailed April 5, 2007, please consider the following remarks:

Claims 1-28 and 40-42 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent application 2003/0008152 to Tsai et al. in view of U.S. patent 6,656,601 to Kawachi et al. and further in view of U.S. patent 4,751,270 to Urawa et al. Claims 29 and 43 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al. in view of Kawachi et al. and further in view of U.S. patent 6,849,314 to Jing et al.

The Examiner reiterates in his answer to Appellants' appeal brief that it would have been obvious to one skilled in the art to combine the Tsai et al. and Kawachi et al. references. Particularly, the Examiner states that one of ordinary skill in the art would have recognized to look to Kawachi et al. for its teaching of an adhesive composition that is a blend of an ethylene/α-olefin copolymer and a tackifier, and would have been motivated to combine said teaching with the teachings of Tsai et al. to arrive at the presently claimed invention. Appellants emphatically disagree.

Appellants do not disagree that Tsai, et al. identifies the modified polyolefins of Urawa, et al. as suitable for use in their invention. However, as the Examiner admits, Tsai, et al. and Urawa, et al. fail to teach or suggest an adhesive composition that comprises a combination of at least one tackifier and at least one ethylene/alpha-olefin copolymer. In view of this discrepancy, the Examiner has applied Kawachi, et al., which teaches an adhesive composition that includes both an ethylene/α-olefin copolymer and a tackifier. The Examiner then leaps to the conclusion that it would be obvious to add a tackifier to any ethylene/α-olefin copolymer containing adhesive composition in any multilayer film, and thereby obvious to combine the teachings of Tsai, et al and Kawachi, et al. However, **the prior art does not suggest the desirability of this combination.**

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Likewise, the belief that

one skilled in the art could form the claimed multilayered film does not suggest that one should form such a film to obtain the disclosed benefits.

Moreover, as the Board of Patent Appeals and Interferences stated in Ex parte Levengood, obviousness cannot be established by combining references "without also providing evidence of the motivating force which would impel one skilled in the art to do what the patent applicant has done", Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). Such a motivating force is absent in the proposed combination of references, and there is simply nothing in either reference that would impel one skilled in the art to add a tackifier to the adhesive layer of Tsai, et al. or to use the adhesive layer of Kawachi, et al. as an adhesive tie layer between a fluoropolymer layer and a thermoplastic polymer layer. Accordingly, it is respectfully submitted that the Examiner has applied an improper standard of patentability and should be overruled.

The Examiner argues that Kawachi, et al. is relied upon solely to teach that a tackifier is a well known additive to an ethylene/α-olefin copolymer adhesive layer in a multilayer polymeric film. However, as set forth in Ex parte Levengood, a statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. (Id.). Such an objective reason is absent. The applied art provides no motivation or objective reason to add a tackifier to the modified polyolefin composition of Tsai et al. It is again submitted that the Examiner is improperly reconstructing the art in light of Appellants' disclosure. Obviousness cannot be established by hindsight combination to produce the claimed invention. In re Gorman, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed.Cir.1991). It is the prior art itself, and not the Applicants' achievement, that must establish the obviousness of the combination. Where Applicants' teachings are needed to as a guide to piece together the invention, the invention is not obvious.

Appellants submit that the Examiner is looking beyond the teachings of the references and respectfully reiterate that the Examiner is indeed applying an “obvious to try” standard of patentability as an excuse to combine adhesive layer of Kawachi, et al. into the fluoropolymer-containing multilayer film of Tsai, et al. The Examiner even states on page 3 of the final rejection, “it is not unreasonable for one of ordinary skill to try a polymer adhesive with all types of polymers, whether specifically mentioned or not” (emphasis added). It is conventionally known in the multilayer film art that there is difficulty in successfully bonding fluoropolymer layers to thermoplastic polymer layers. See, for example, the applied reference to Jing (U.S. patent 6,849,314), which acknowledges this known difficulty in the art. Such exemplifies the need in the art for Appellants’ invention. The Examiner may not presume that one skilled in the art would try adding a tackifier to the adhesive layer of Tsai, et al. because a tackifier is used in the adhesive layer of Kawachi, et al. There must be some teaching or suggestion to make the proposed combination, and the references fail to provide this motivation.

The Examiner applies the Jing et al. reference specifically to show that multilayer fluoropolymer-containing structures in the form of tubes are known. This reference fails to teach the multilayer structures of the claimed invention and fails to overcome the deficiencies of Tsai, et al. and Kawachi, et al.

For all the above reasons, the applied references fail to provide both the requisite motivation and the requisite reasonable expectation of success to arrive at the claimed

invention and claims 1-29 and 40-43 are urged to be patentable over the cited references. Accordingly, it is respectfully submitted that the 35 U.S.C. 103(a) rejections are improper and should be overruled. Such action is respectfully requested.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage pre-paid in an envelope addressed to Commissioner for Patents and Trademarks, P.O. Box 1450, Alexandria, VA 22313-1450, on May 14, 2007.



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